

Teacher's Profile

Name: Mrs. Lopamudra Choudhury

Department [Specialisation]: Microbiology [Molecular Biology; Microbial Biochemistry; Food and Industrial Microbiology]



Designation: Part Time Teacher (Govt. Approved)

Position Held [previous service]:

Name of the Employer	Position Held	Duration/Year	Remarks
Sikkim Manipal University	Guest Lecturer	2009-2010	Subject: Bioinformatics (included under the M. Sc. Curriculum in Bioinformatics of Sikkim Manipal University) at the Gariahat Study Centre of Sikkim Manipal University

Date of Joining in Sarsuna College: 01/08/2006

Contact Information: Email: lopamudraroy82@rediffmail.com **Phone:** 9831460042

Academic Qualifications:

Degree	College/University/Institution	Year
B.Sc. (Microbiology)	Sarsuna College (University of Calcutta)	2004
M.Sc. (Microbiology)	University of Calcutta	2006
M.Phil (Microbiology)	Vinayak Missions University	2009
Ph.D (Microbiology)	University of Calcutta	Pursuing

- Qualified in the **GATE Examination (in Life Sciences), 2006** [All India Rank – **1079** out of **9993** candidates appeared].

	Title of Thesis	College/University/Institution	Year
M.Phil	“Microorganisms in Khoa and their Impact on Public Health”	Vinayak Missions University	2009
Ph.D	“Studies On Antibiotic-Resistant Actinomycetes From Canal Soils In And Around Kolkata”	University of Calcutta	Pursuing

Research Interests: Microbial Biochemistry, with special emphasis on antibiotic-resistant soil actinomycetes.

Areas of Teaching: Introduction to Microbiology, Bacteriology, Biochemistry, Cell Biology, Microbial Physiology and metabolism, Molecular Biology, Microbial Genetics, Environmental Microbiology, Recombinant DNA Technology, Food and Dairy Microbiology, Industrial Microbiology, Medical Microbiology (including Theory and Practical)

Publications:

1. **Book:** Co-authored a Book titled ‘**Comprehensive Microbiology**’ (2018) [ISBN: 978-93-85274-05-3] for UG and PG students of Medicine and Microbiology curriculum under different Indian and Foreign Universities, published by Current Books International, Kolkata.

2. Original Research Articles in Peer-Reviewed Journals:

- Roy, S., Roy, L. and Guha, A.K. (2017) Microorganisms in Cut Cucumber and their Public Health Significance. **International Journal of Food and Fermentation Technology**. 7(2):241-246. DOI: 10.5958/2321-5771.2017.00033.3 [ISSN (Print): 2249-1570; ISSN (Online): 2277-9396].
- Dasgupta, M., Das, R., Haque, G., Banerji, I., Nandy, S., Mitra, A. K. and Roy, L. (2014) Modification in Asphalt Texture by Heavy Metal Tolerant Bacteria Isolated From Industrial Effluent. **Nature Environment and Pollution Technology**. 13(4):787-790 [ISSN (Print): 0972-6268; ISSN (Online): 2395-3454].

3. Original Review Papers in Peer-Reviewed Journals:

- Roy, S., Roy, L. and Das, N. (2019) Microbes in my 'Cup of Tea'. **Journal of The Botanical Society of Bengal**. 73(2):95-102. [ISSN (Print): 0971-2976].
- Roy, S., Roy, L. and Das, N. (2019) Peeping into The Kettle: A Review on the Microbiology of 'Made Tea'. **International Journal of Pharmacy and Biological Sciences (UGC approved; MCI approved)**. 9(1):842-849. DOI: <https://doi.org/10.21276/ijpbs.2019.9.1.108> [ISSN (Print): 2321-3272; ISSN (Online): 2230-7605].
- Roy, S., Roy, L. and Das, N. (2018) Bacteria – the New 'Magic Bullet' against Cancer! **Indian Science Cruiser (UGC approved)**. 32(6):25-31. DOI: 10.24906/isc/2018/v32/i6/179815. [Search & Survey Article] [ISSN (Print): 0970-4256].

4. Seminars/ workshop/ conference publication/ proceedings/ journals/ volumes:

- Attended an International Symposium on 'Environment and Climate Crises' organised by the Department of Environmental Studies, St. Xavier's College (Autonomous), Kolkata, in collaboration with The Blue Patch and The Biome, on 20.12.19.
- Attended and Judged the Poster Competition at the two-day National Seminar on 'Modern Trends in Microbiology' (Chapter XVI), sponsored by The Telegraph, Co-sponsored by Mercy Hospitals, and organised by the Post-Graduate Department of Microbiology, St. Xavier's College (Autonomous), Kolkata, on 26.09.19-27.09.19.
- Attended a National Seminar on 'Frontiers in Biological Science (FIBS)-Chapter III' organised by the Post-Graduate Department of Microbiology, St. Xavier's College (Autonomous), Kolkata, on 21.09.19-22.09.19.
- Attended the 9th India Probiotic Symposium - "Probiotics through the lifespan" (National Symposium), sponsored by Gut Microbiota and Probiotic Science Foundation (India), in collaboration with Indian Council of Medical Research (ICMR), New Delhi, Indian Institute of Liver and Digestive Sciences (IILDS), & Amity University, Kolkata, at Amity University, Kolkata, on 24.11.18-25.11.18.
- Attended and Judged the Poster Competition at the two-day National Seminar on 'Modern Trends in Microbiology' (Chapter XV), sponsored by The Telegraph, Co-sponsored by Mercy Hospitals, and organised by the Post-Graduate Department of Microbiology, St. Xavier's College (Autonomous), Kolkata, on 10.10.18-11.10.18.

- Attended an International Seminar on ‘Frontiers in Biological Science (FIBS)-Chapter II’ organised by the Post-Graduate Department of Microbiology, St. Xavier’s College (Autonomous), Kolkata, on 21.08.18.
- Attended a Workshop for U.G. Microbiology Teachers on ‘B.Sc. Syllabus in Microbiology (Hons. & Genl.) under CBCS System’ organised by the Councils for Under Graduate Studies & Under Graduate Board of Studies in Microbiology, University of Calcutta, on 31.05.18.
- Attended an International Seminar on ‘Frontiers in Biological Science (FIBS)’, sponsored by Department of Science & Technology, Govt. of West Bengal, and organised by the Post-Graduate Department of Microbiology, St. Xavier’s College (Autonomous), Kolkata, on 30.01.18 [Abstract published in the Proceedings].
- Attended and Chaired a Scientific Session at the two-day National Seminar on ‘Modern Trends in Microbiology’ (Chapter XIV), organised by the Post-Graduate Department of Microbiology, St. Xavier’s College (Autonomous), Kolkata.
- Attended an International Level Seminar on ‘Recent Trends in Microbiology’, sponsored by RUSA, and organised by Department of Microbiology, Ramakrishna Mission Vidyamandira, Belur Math, Howrah, on 14.01.17.
- Attended a DBT (Govt. of India) sponsored two-day National Level Workshop on ‘Advances in Condensed Matter Physics with special emphasis on Biological Systems’ for Faculty Development, organised by the Department of Physics, St. Xavier’s College (Autonomous), Kolkata, on 09.12.16-10.12.16.
- Chaired a two-day National Seminar on ‘Modern Trends in Microbiology’ (Chapter XIII), organised by the Post-Graduate Department of Microbiology, St. Xavier’s College (Autonomous), Kolkata, on 20.09.16-21.09.16.
- Attended a State Level Seminar - 23rd West Bengal State Science & Technology Congress (WBSSTC), sponsored by Presidency University, Kolkata, Department of Science and Technology, Govt. of West Bengal and West Bengal Council of Science & Technology, Kolkata, Govt. of West Bengal, at Presidency University, Kolkata, on 28.02.16-29.02.16 [Abstract published in the Proceedings].
- Participated in a DBT sponsored one-day Workshop on ‘Bioinformatics’, organised by the Post-Graduate Department of Microbiology, St. Xavier’s College (Autonomous), Kolkata, on 21.12.15.
- Chaired a two-day National Seminar on ‘Modern Trends in Microbiology’ (Chapter XII), organised by the Post-Graduate Department of Microbiology, St. Xavier’s College (Autonomous), Kolkata, on 09.10.15 and 10.10.15.
- Participated in a two-day National Seminar on ‘Modern Trends in Microbiology’ (Chapter X), organised by the Post-Graduate Department of Microbiology, St. Xavier’s College (Autonomous), Kolkata, on 26.09.13 and 27.09.13.
- Attended a National Conference - 100th Indian Science Congress, sponsored by The Indian Science Congress Association, at the University of Calcutta, Kolkata, on 03.01.13-07.01.13.

- Attended a State Level Seminar on ‘Geographical Appraisal of the City of Joy’s Environmental Wellbeing’, sponsored by UGC, at the Town Hall, Kolkata, on 17.01.12.

Other Experiences:

1) Teaching experience:

As Guest Lecturer in Bioinformatics (included under the M. Sc. Curriculum in Bioinformatics of Sikkim Manipal University) at the Gariahat Study Centre of Sikkim Manipal University (2009-2010).

2) Research Guidance:

Mentors College students for their Scientific Project works to be presented in the form of Oral and Poster Presentations, both inside and outside the College.

3) Experience as Moderator, Paper Setter and Examiner:

Member of the Board of Moderators (BOM) for the M.Sc. Part – II Examination in Botany, Post Graduate Section, Jogamaya Devi College, affiliated to University of Calcutta; Paper Setter of different theoretical and practical examinations of Microbiology (Honours and General) under University of Calcutta; Examiner of different theoretical examinations of Microbiology (Honours and General) and External examiner of practical examinations of Microbiology (Honours and General) under University of Calcutta.

4) Experience as National Media Resource Person:

- Presented a scientific talk on ‘Alexander Flemming – discoverer of the wonder drug Penicillin’ to commemorate the 135th Birth Anniversary of Sir Alexander Fleming, broadcasted on Akashvaani Kolkata B and FM GOLD (Prasar Bharati) in 2016.
- Delivered lectures on different topics in Microbiology (for the Undergraduate students of different Indian Universities) for the Educational Multimedia Research Centre (EMMRC), St. Xavier’s College (Autonomous) Kolkata, which were broadcasted on National Television in 2013.

5) Computer Acquaintance:

- Have knowledge of basic computer operations and MS-OFFICE.
- Have completed a ‘Hands on Training Program in Bioinformatics’ organised by The Biome & Amplicon Biosciences Pvt. Ltd., held at St. Xavier’s College (Autonomous), Kolkata, on 21.12.15.
- Have completed a “Certificate course on IT and MS-OFFICE” held from 02.04.2004 to 25.08.2004 from CMC Computer Education (CMC Limited).

Technical experiences:

- In **General Microbiology**: Simple and differential staining of different microorganisms; endospore-staining; capsule-staining; different pure-culture isolation techniques.
- In **Analytical Microbiology**: Different analyses of water and soil samples; different assays of antibiotics; determination of phenol-coefficient; enumeration of microorganisms using hemocytometer, determination of microbial cell-size using principles of micrometry.

- c) In **Food Microbiology**: Detailed microbiological and biochemical analyses of food-samples (both fresh and street-vended).
- d) In **Clinical Microbiology**: Stool-culturing and Blood-culturing of pathological specimens on different types of selective and differential culture-media; Serological-testing.
- e) In **Environmental Microbiology**: Studies of diverse environmental microflora; isolation, characterization and demonstration of protease-secreting microorganisms from soil.
- f) In **Industrial Microbiology**: Fermentation Technology of special industrial importance; extracellular enzyme-assays; whole-cell immobilization.
- g) In **Molecular Biology**: Plasmid-DNA isolation; gel-electrophoreses (Agarose and SDS-PAGE); genomic-DNA isolation; determination of T_m value of DNA; PCR; synthetic primer-development; RAPD; DNA-sequencing; restriction-digestion; overexpression of foreign protein.
- h) In **Microbial Genetics**: Transformation; Conjugation.
- i) In **Immunology**: Western blotting; different types of ELISA, SRID, ODD; different types of immunoelectrophoreses; blood-group typing.
- j) In **Virology**: Plaque-assay of coliphage.
- k) In **Biochemistry**: Qualitative detection and quantitative estimation of proteins, amino-acids, lipids, carbohydrates and nucleic-acids; thin-layer chromatographic techniques of amino-acids and lipids; different assays in enzymology; subcellular-fractionation; different biochemical tests of clinical importance.
- l) In **Biostatistics**: Basic techniques, like different parametric and non-parametric tests.

Invited Lectures:

- Co-author of an Oral Presentation titled 'Biodegradation of sodium dodecyl sulphate (SDS) and other commercial detergents by salt tolerant *Brevibacillus* sp. and other bacterial isolates from the Bay of Bengal coastal beach' at the **103rd Indian Science Congress**, 2016, Mysore, organised by The Indian Science Congress Association.
- Co-author of an Oral Presentation titled 'Modification in Asphalt Texture by Heavy Metal Tolerant Bacteria isolated from Industrial Effluent' at the **4th International Conference** on 'Ecotoxicology & Environmental Sciences (ICEES – 2014)', New Delhi, organized by the Institute of Ecotoxicology and Environmental Sciences (IEES), Kolkata.

Other prestigious/ distinguished Post holding: Member of the Board of Moderators (BOM) for the M.Sc. Part – II Examination in Botany, Post Graduate Section, Jogamaya Devi College, affiliated to University of Calcutta.

Membership of Learned Societies:

- Member of **The Indian Science Congress Association.**

Other notable activities:

Member of different College Committees like:

- Committee for the Maintenance of Instruments in the College Central Laboratory Facility
- University Examination and College Internal Examination Committee
- College Cultural Committee.

Award/ Scholarship/ Fellowship:

- **1ST CLASS 1ST in College in B.Sc. (3 year) Examination, 2004 (in Microbiology) from Calcutta University.**
 - Awarded with the **1st Prize in Poster Competition** (entitled: “Packaged Drinking Water and Soft Drinks – A Second Thought!!”) at the **International Seminar on ‘Frontiers in Biological Science (FIBS)’**, 2018, sponsored by the **Department of Science & Technology, Govt. of West Bengal**, and organized by the Department of Microbiology, St. Xavier’s College (Autonomous), Kolkata.
 - Qualified in the **GATE Examination (in Life Sciences), 2006 [All India Rank – 1079 out of 9993 candidates appeared]**.
 - Awarded with a ‘**Completion Certificate**’ for having done a two-and-a half month-long ‘**M. Phil Research Project**’ on “Microorganisms in Khoa and their Impact on Public Health” in July-mid September, 2008 under the able guidance of Dr. Kalyan Chakrabarti, Reader, Department of Agricultural Chemistry and Soil Science, Institute of Agricultural Science, Calcutta University, Kolkata.
 - Awarded with a ‘**Completion Certificate**’ for having done a one-and-a half month-long ‘**M.Sc. Summer Research Training Project**’ from Indian Institute of Chemical Biology (IICB), Kolkata, on “Comparison of the Single Nucleotide Polymorphic Pattern of Exon 3 of the Kappa Opioid Receptor Gene in Normal and Narcotic Addicts” in June-mid August, 2005 under the able guidance of Dr. Sumantra Das, Scientist and Head, Neurobiology Division, Indian Institute of Chemical Biology (IICB), Kolkata.
 - Obtained the **1st Position in a Reality Show ‘Rabindrasangeet er Maharon’, conducted by Music2000 and telecasted on Bengali TV channel CTVN**; obtained the **2nd Position in a Reality Show conducted by Sagarika Music Company**; has **3 CDs on Rabindrasangeet (including one solo album)**; has **2 CDs on Modern Bengali Songs**; has sung for different teleserials; has multiple music videos available on YouTube.
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